Yen-Chung **Chen**

PhD Candidate

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Education

New York University

New York, NY, U.S.A.

Doctor of Philosophy: Biology, GPA: 4.0/4.0

Sep. 2018 – Present

- Henry M. MacKracken Fellow
- NYSTEM Predoctoral Fellow

National Taiwan University

Taipei, Taiwan

Doctor of Medicine, GPA: 3.45/4.0, GRE: V160/Q170/AW4.5

Sep. 2007 – Jun. 2014

Research Experience

Dr. Claude Desplan Lab, New York University

NY, USA

PhD Candidate

June 2019 – Current

- Molecular logic of neuronal specification in the fly visual system

Dr. Jun-An Chen Lab, Institute of Molecular Biology, Academia Sinica

Taipei, Taiwan

Research Assistant

August 2015 – August 2018

- Studying the roles of non-coding RNAs in diseases and development with patient derived iPS cells

Dr. Min-Chuan Huang Lab, National Taiwan University College of Medicine

Taipei, Taiwan

Undergraduate research

January 2009 – August 2010

- Screening dysregulated glycosyltransferase expression in hepatic cancer

Publications

Yu-Chieh David Chen, **Yen-Chung Chen**, Raghuvanshi Rajesh, Nathalie Shoji, Maisha Jacy, Haluk Lacin, Ted Erclik, Claude Desplan. "*Using Single-Cell RNA Sequencing to Generate Predictive Cell-Type-Specific Split-GAL4 Reagents throughout Development*" *Proceedings of the National Academy of Sciences* **120**(32), e2307451120 (2023)

Tai-Heng Chen, Shih-Hsin Chang, Yu-Fu Wu, Ya-Ping Yen, Fang-Yu Hsu, **Yen-Chung Chen**, Yang Ming, Ho-Chiang Hsu, Yi-Ching Su, Sheng-Tang Wong, Jui-Hung Hung, Shih-Hwa Chiou, Yuh-Jyh Jong, Jun-An Chen. "*MiR34 Contributes to Spinal Muscular Atrophy and AAV9-mediated Delivery of MiR34a Ameliorates the Motor Deficits in SMA Mice*" *Molecular Therapy - Nucleic Acids*. S2162253123000641 (2023)

Ee Shan Liau, Suoqin Jin, **Yen-Chung Chen**, Wei-Szu Liu, Maëliss Calon, Stéphane Nedelec, Qing Nie, Jun-An Chen. "*Single-Cell Transcriptomic Analysis Reveals Diversity within Mammalian Spinal Motor Neurons*" *Nature Communications* **14**(1), 46 (2023)

Tzu-Chiao Lu, Maria Brbić, Ye-Jin Park, ..., **Yen-Chung Chen**, ..., Hongjie Li. "*Aging Fly Cell Atlas Identifies Exhaustive Aging Features at Cellular Resolution*" *Science* **380**(6650), eadg0934 (2023)

Yen-Chung Chen, Nikolaos Konstantinides. "*Integration of Spatial and Temporal Patterning in the Invertebrate and Vertebrate Nervous System*" *Frontiers in Neuroscience* **16**, 854422 (2022)

Brianne A. Kent, Constance Holman, Emmanuella Amoako, ..., **Yen-Chung Chen**, ..., Tracey L. Weissgerber. "*Recommendations for Empowering Early Career Researchers to Improve Research Culture and Practice*" *PLOS Biology* **20**(7), e3001680 (2022)

Nikolaos Konstantinides, Isabel Holguera, Anthony M. Rossi, Aristides Escobar, Liébaut Dudragne, **Yen-Chung Chen**, Thinh N. Tran, Azalia M. Martínez Jaimes, Mehmet Neset Özel, Félix Simon, Zhiping Shao, Nadejda M. Tsankova, John F. Fullard, Uwe Walldorf, Panos Roussos, Claude Desplan. "*A Complete Temporal Transcription Factor Series in the Fly Visual System*" *Nature* **604**(7905), 316–322 (2022)

Seungjae Lee, **Yen-Chung Chen**, FCA Consortium, Austin E. Gillen, J. Matthew Taliaferro, Bart Deplancke, Hongjie Li, Eric C. Lai. "*Diverse Cell-Specific Patterns of Alternative Polyadenylation in Drosophila*" *Nature Communications* **13**(1), 5372 (2022)

Mehmet Neset Özel, Félix Simon, Shadi Jafari, Isabel Holguera, **Yen-Chung Chen**, Najate Benhra, Rana Naja El-Danaf, Katarina Kapuralin, Jennifer Amy Malin, Nikolaos Konstantinides, Claude Desplan. "*Neuronal Diversity and Convergence in a Visual System Developmental Atlas*" *Nature* **589**(7840), 88–95 (2021)

Yen-Chung Chen, Claude Desplan. "*Gene Regulatory Networks during the Development of the Drosophila Visual System*" *Current Topics in Developmental Biology* **139**, 89–125 (2020)

Ying-Tsen Tung, Kuan-Chih Peng, **Yen-Chung Chen**, Ya-Ping Yen, Mien Chang, Sebastian Thams, Jun-An Chen. "*Mir-17∼92 Confers Motor Neuron Subtype Differential Resistance to ALS-Associated Degeneration*" *Cell Stem Cell* **25**(2), 193–209.e7 (2019)

Ya-Ping Yen, Wen-Fu Hsieh, Ya-Yin Tsai, Ya-Lin Lu, Ee Shan Liau, Ho-Chiang Hsu, **Yen-Chung Chen**, Ting-Chun Liu, Mien Chang, Joye Li, Shau-Ping Lin, Jui-Hung Hung, Jun-An Chen. "*Dlk1-Dio3 Locus-Derived lncRNAs Perpetuate Postmitotic Motor Neuron Cell Fate and Subtype Identity*" *eLife* **7**, e38080 (2018)

Honors & Awards

2023	**Dean's Outstanding Graduate Student Teaching Award**, New York University	*NY, USA*
2022	**Training Program in Stem Cell and Regenerative Biology**, NYSTEM	*NY, USA*
2022	**Kopac Teaching Award II**, New York University	*NY, USA*
2022	**Chair's Graduate Fellowship**, New York University	*NY, USA*
2022	**Taiwanese Government Scholarship to Study Abroad**, Ministry of Education	*Taiwan*
2017	**Best Poster**, International Conference of Developmental Biology, Stem Cells and Regenerative Medicine	*Taiwan*

Membership and Services

Mentor Program — *Project Tyra*

Mentor — *2022*

Consulting graduate school applicants in biological sciences

preLights — *Company of Biologists*

preLighter — *Sep. 2018 – Present*

Share and highlight preprints to advocate open discussion of scientific publications

eLife Community Ambassadors — *eLife*

eLife Community Ambassador — *Apr 2019 – Jun 2020*

Advocating better statistical practices, data reusability and reproduciblity

Teaching and Work

Statistics in Biology — *New York University*

Graduate teaching assistant — *Fall 2022*

Recitation sessions of R and statistic methods

R Bootcamp for Summer Undergraduate Research Program — *New York University*

Speaker — *Summer 2021 and 2022*

A 10-session bootcamp for R in biology

Sophomore Scholars Seminar — *New York University*

Graduate teaching assistant — *Fall 2021 and Spring 2022*

Discussion panels about evo-devo, immunology, gene editing, and art

Applied Genomics — *New York University*

Graduate teaching assistant — *Spring 2021*

Design and host recitation sessions for the use of modern genomic tools for alignment, variant calling, RNA-Seq, and ChIP-seq

Principles of Biology I/II — *New York University*

Graduate teaching assistant — *Fall 2019 and Spring 2020*

Manage recitation sections to help undergrads from a diverse field appreciate various aspects of life sciences

Techniques

Bioinformatics	R, Python, C, and next-generation sequencing pipeline setup on Linux
Tissue culture	Stem cell culture and directed differentiation
Animal model	Fly dissection and whole-mount immunostaining
Molecular biology	Molecular cloning, Western blotting, real-time QPCR, and gene editing